

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (original): A method of determining whether a subject is at increased risk for alcoholism, said method comprising:

(a) administering to a subject a therapeutically effective amount of a GABA<sub>A</sub> receptor modulator and determining whether the subject is sensitive or insensitive to such GABA<sub>A</sub> receptor modulator;

(b) subsequently administering a therapeutically effective amount of a GABA<sub>A</sub> receptor agonist and determining whether the subject is sensitive or insensitive to such GABA<sub>A</sub> agonist; and

(c) correlating a decreased sensitivity to a GABA<sub>A</sub> receptor modulator and an increased sensitivity to a GABA<sub>A</sub> agonist with an increased risk of alcoholism in the subject.

Claim 2 (original): The method of claim 1 wherein the GABA<sub>A</sub> receptor modulator is a benzodiazepine.

Claim 3 (original): The method of claim 1 wherein the GABA<sub>A</sub> receptor agonist is gaboxadol or THIP.

Claim 4 (original): The method of claim 2 wherein the benzodiazepine is Valium (diazepam), Activan (lorazepam), Midazolam, or Flunitrazepam.

Claim 5 (original): The method of claim 4 wherein the dose range is from about 5 to about 20 mg.

Claim 6 (original): The method of claim 3 wherein the dose range is from about 1 to about 3 mg/kg.

Claim 7 (original): A method of screening for a drug which decreases expression of the  $\alpha_4\beta_2\delta$  subunit of GABA<sub>A</sub>, said method comprising:

- (a) isolating and culturing neurons;
- (b) applying a drug to the cultured neurons;
- (c) measuring the level of  $\delta$  subunit of GABA<sub>A</sub> from the treated neurons of step (b);
- (d) determining whether the drug applied in step (b) decreases expression of the  $\delta$  subunit of GABA<sub>A</sub> receptors; and
- (e) correlating a decrease in expression of the  $\delta$  subunit of GABA<sub>A</sub> receptors found in the treated neurons of step (b) when compared to a control neuron culture having no drug application, with the identification of a drug which decreases expression of  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors.

Claim 8 (original): A method of screening for a drug which decreases expression of the  $\alpha_4\beta_2\delta$  subunit of GABA<sub>A</sub> receptor, said method comprising: (a) expressing  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors in eukaryotic cells; (b) applying a drug to the eukaryotic cells of (a); (c) measuring the level of  $\delta$  subunit of GABA<sub>A</sub> from the treated eukaryotic cells of step (b); (d) determining whether the drug applied in step (b) decreases expression of the  $\delta$  subunit of GABA<sub>A</sub> receptors; and (e) correlating a decrease in expression of the  $\delta$  subunit of GABA<sub>A</sub> receptors found in the treated eukaryotic cells of step (b) when compared to a control eukaryotic cell population having no drug application, with the identification of a drug which decreases expression of  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors.

Claim 9 (original): A drug that decreases expression of the  $\alpha_4\beta_2\delta$  subunit of GABA<sub>A</sub> and identified by the method of claim 7 or 8.

Claim 10 (currently amended): A method of treating a subject at risk for alcoholism, said method comprising administering a therapeutically effective amount of a drug of claim 7, 8, or 9.

Claim 11 (original): A method for identifying a drug which blocks  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors, said method comprising:

- (a) isolating and culturing neurons;
- (b) applying a drug to the cultured neurons of (a);
- (c) measuring GABA<sub>A</sub> gated currents at  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors in the treated neurons of (b); and
- (d) correlating a decrease in GABA<sub>A</sub>-gated currents recorded at  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors when compared to a control culture with no drug application, with the identification of a drug which blocks  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors.

Claim 12 (original): A method for identifying a drug which blocks  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors, said method comprising (a) expressing  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors in eukaryotic cells ; (b) applying a drug to the eukaryotic cells of (a); (c) measuring GABA<sub>A</sub> gated currents at  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors in the treated eukaryotic cells of (b); and (d) correlating a decrease in GABA<sub>A</sub>-gated currents recorded at  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors when compared to a eukaryotic cell population having no drug application, with the identification of a drug which blocks  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors.

Claim 13 (currently amended): A drug which blocks  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors and identified by the method of claim 10, 11, or 12.

Claim 14 (currently amended): A method of treating a patient at risk for alcoholism, said method comprising administering a therapeutically effective amount of the drug of claim ~~11, 12~~ or 13.

Claim 15 (original): A method of determining whether a subject is at increased risk for premenstrual anxiety, said method comprising:

(a) administering to a subject a therapeutically effective amount of a GABA<sub>A</sub> receptor modulator and determining whether the subject is sensitive or insensitive to such GABA<sub>A</sub> receptor modulator;

(b) subsequently administering a therapeutically effective amount of a GABA<sub>A</sub> receptor agonist and determining whether the subject is sensitive or insensitive to such GABA<sub>A</sub> agonist; and

(c) correlating a decreased sensitivity to a GABA<sub>A</sub> receptor modulator and an increased sensitivity to a GABA<sub>A</sub> agonist with an increased risk of premenstrual anxiety in the subject.

Claim 16 (original): The method of claim 15 wherein the GABA<sub>A</sub> receptor modulator is a benzodiazepine.

Claim 17 (original): The method of claim 15 wherein the GABA<sub>A</sub> receptor agonist is gaboxadol or THIP.

Claim 18 (original): The method of claim 16 wherein the benzodiazepine is Valium (diazepam), Activan (lorazepam), Midazolam, or Flunitrazepam.

Claim 19 (original): The method of claim 18 wherein the dose range is about 5-20 mg.

Claim 20 (original): The method of claim 17 wherein the dose range is about 1-3 mg/kg.

Claim 21 (currently amended): A method of treating a subject at risk for premenstrual anxiety, said method comprising administering a therapeutically effective amount of a drug of claim ~~7, 8, or 9~~.

Claim 22 (currently amended): A drug which blocks  $\alpha_4\beta_2\delta$  GABA<sub>A</sub> receptors and identified by the method of claim 11[[, ]] or 12 ~~or 21~~.

Claim 23 (currently amended): A method of treating a patient at risk for premenstrual anxiety, said method comprising administering a therapeutically effective amount of the drug of claim ~~11, 12 or~~ 13.

Claim 24 (original): The method of claim 8 or 12 wherein the eukaryotic cells are *Xenopus laevis* oocytes, Chinese hamster ovary (CHO) cells, mouse fibroblast L929 cells, mouse L(-tk) fibroblast cell line, human embryonic kidney cells, green monkey kidney cells, or COS cells.